a multi-coating layer formed on said separator substrate;

said multi-coating layer including at least two layers selected from the group consisting of a low electric resistance layer, a corrosion resistance layer and a peeling resistance layer.

In contrast, Hwang et al disclose an anticorrosive treatment method for a separator of a molten carbonate fuel cell (Hwang et al, col. 2, lines 21-24, abstract). Coating of a large-area separator is freely accomplished in simplified processes. The anticorrosive treatment method for a separator of a molten carbonate fuel of the reference comprises

(1) plating a base material composed of stainless steel plate with nickel;

(2) bonding a thin aluminum film an a gas seeling portion of the nickel-plated base material;

(3) thermally treating to form metal compound of the nickel and aluminum at the junction surface between the base material, the nickel and the aluminum (Hwang et al, col. 2, lines 40-51).

However, the Al that is used in the coating layer has a low corrosion protecting property. Thus, aluminum hydroxide may dissolve out of the substrate. Accordingly, the layer having Al and Ni does not act as a corrosion-protecting layer in Hwang et al.

In addition, the Examiner states that Ag acts as a peeling resistance layer in Hwang et al.

However, in Hwang et al a thin aluminum film is bonded by the thickness of about 10-50μm on the wet-seal area of the nickel plated base material or the clad steel plate using a bonding material such as silver paste (col. 3, lines 54-59). However, there is no disclosure of a peel-resistance layer.

Furthermore, the fuel cells in which separators are used are different in the present invention and in Hwang et al.

Therefore, the rejection of Claims 1, 4, 5, and 16 under 35 U.S.C. §102(e) as anticipated by is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

In addition, the rejection of Claims 1, 4, 5 and 6 under 35 U.S.C. §102(e) over Hiermaier et al is respectfully traversed.

Hiermaier et al provide a current-carrying component for a molten carbonate fuel cell which has improved corrosion proofing. The reference discloses a current-carrying component comprising: a substrate made of stainless steel and having a corrosion proofing coating to protect the component from an anode gas atmosphere and a molten electrolyte of the fuel cell. The coating comprises at least a first layer and a second layer made of different corrosion proofing materials (Hiermaier et al, abstract).

However, Hiermaier et al fail to disclose or suggest a low electric resistance layer, and a peeling resistance layer. Furthermore, the second layer of Hiermaier et al which may consist of silver is not a peel-resistance layer. The silver-layer is used in current-carrying components in which Ni is used as the first layer so that when the fuel cell heats up, the silver migrates along the grain boundaries of the nickel, preventing diffusion of components of the stainless steel material of the substrate, and of oxygen, so that oxides cannot form (Hiermaier et al, col. 3, lines 48-56). Thus, the silver layer of the reference acts as a diffusion preventing layer and is not a peel-resistance layer. In fact, the cited reference clearly states that there is no diffusion between the Ni-layer and the substrate or any interdiffusion between the second and the first layer (Ni and Ag, respectively) (Hwang et al, col. 3, lines 54-59). Thus, the prsent invention is neither anticipated by nor obvious over Hiermaier et al.

Finally, the fuel cells in which separators are used are different in the present invention and Hiermaier et al.

Therefore, the rejection of Claims 1, 4, 5 and 16 under 35 U.S.C. §102(e) over Hiermaier et al is believed to be unsustainable and withdrawal of this rejection is respectfully requested.

Claims 2 and 3 depend directly on Claim 1. However, Hiermaier et al or Hwang et al or their combination fail to disclose or suggest the combination of at least two layers selected from the group consisting of a low electric resistance layer, a corrosion resistance layer and a peeling resistance layer.

Therefore, the rejections of Claims 2 and 3 under 35 U.S.C. §103(a) over a combination of Hwang et al and Hiermaier et al is believed to be unsustainable and withdrawal of these rejections is respectfully requested.

The rejection of Claim 3 under 35 U.S.C. §112, 1st paragraph, is respectfully traversed. Claim 3 is based on the description in the specification at page 27 line 14 to page 28 line 3 and further supported by Fig. 2. Accordingly, the rejection of Claim 3 under 35 U.S.C. §112, 1st paragraph, is believed to be unsustainable and its withdrawal is requested.

The rejection of Claim 1-5 under 35 U.S.C. §112, 2nd paragraph, is obviated by the amendment of Claim 1 in which it has been specified that the electric resistance is equal to or lower than $1000\mu\Omega cm^2$.

Finally, Applicants wish to note that MPEP §821.04 states, "if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim will be rejoined." Applicants respectfully submit that should the elected group be found allowable, the non-elected claims should be rejoined.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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Serial No: **09/448,144**
Amendment Filed on: **HEREWITH**

IN THE CLAIMS

--1. (Twice Amended) A separator of a proton exchange fuel cell, comprising:

a separator substrate; and

a multi-coating layer formed on said separator substrate;

said multi-coating layer including at least two layers selected from the group consisting of a low electric resistance layer, a corrosion resistance layer and a peeling resistance layer;

wherein a material of said low electric resistance layer has an electric resistance of equal to or lower than $1000\mu\ \Omega cm^2$.--

--Claim 17. (New)--